UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES

Appl. No.	:	10/604,108	Confirmation No. 1107
Applicant	:	Neal A. Downey; Samuel J. Guleff; Christian C. Curtis	
Filed	:	June 26, 2003	Art Unit: 2627
Title	:	MAGAZINE-BASED DATA CARTRIDGE LIBRARY	
Examiner	:	Tianjie Chen	
Docket No.	:	3023726 US01	
Customer No.	:	67,070	

ATTN: Board of Patent Appeals & Interferences
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

BRIEF ON APPEAL

Sir:

This Brief supports the appeal to the Board of Patent Appeals and Interferences from the Notice of Panel Decision from Pre-Appeal Brief Review dated April 13, 2007 in the present application. Appellant files a Notice of Appeal herewith, and now submits this Brief in triplicate, as required by 37 C.F.R. § 1.192(a).

I. REAL PARTY IN INTEREST

Spectra Logic Corp., as assignee of U.S. Patent Application No. 10/604,108 (Reel/Frame 014153/0400), having offices at 1700 North 55th Street, Boulder, Colorado 80301, is the real party in interest.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences pertaining to the above identified application.

III. STATUS OF CLAIMS

A. Claims 1, 21-40 Are Finally Rejected

Claims 1, 21-40 stand rejected under 35 U.S.C. § 103(a) as being obvious over 5,818,723 to Dimitri (hereinafter referred to as "Dimitri") in view of U.S. Patent No. 6,324,608 to Papa et al. (hereinafter referred to as "Papa") in view of U.S. Patent No. 5,440,637 to VanFleet (hereinafter referred to as "VanFleet") and in view of U.S. Patent No. 6,532,652 to Nagai (hereinafter referred to as "Nagai"). Claim 29 stands rejected under 35 U.S.C. § 103(a) as being obvious over Dimitri in view of Papa in view of VanFleet in view of Nagai and further in view of U.S. Patent No. 6,545,865 to Albrecht et al. (hereinafter referred to as "Albrecht"). Dimitri and VanFleet and Papa and Nagai are collectively referred to as "the references."

B. Claims 1, 21-40 Are On Appeal

The decision of the Examiner finally rejecting claims 1, 21-40 is hereby appealed.

IV. STATUS OF AMENDMENTS

No Amendments were filed after the Final Rejection.

V. SUMMARY OF CLAIMED SUBJECT MATTER

A. Brief Description of the Invention

In brief, the present claimed invention involves a conductor system that enhances the amount of data that can be stored in a given volume of storage data space and improves noise level of any nearby signal transmitting cable(s). The flat power

conductor 686 is adapted to convey DC power to a drive means 210 in a data storage library 202 (FIGS 7A, 7B, 8A, 8B) in a space efficient manner.

One embodiment of the library 202, reflected in independent claim 1, can generally include a frame 542, a shelf system 208, having at least one shelf 130, for supporting at least two data cartridge magazines, such as the magazine 270, a drive means 210, a magazine transport device 212, for moving a data cartridge magazine, a cartridge transport device 214, for moving a data cartridge, such as an LTO cartridge 1244, between a data cartridge magazine and the drive means 210 and a power supply 216, for receiving AC power from an external environment and producing DC power in a form suitable for use by the drive means 210 and a flat power conductor 686, all of which are operatively attached to the frame 542. The flat power conductor 686 has both first and second flat external surface that each extend from a first end to a second end wherein the second flat external surface is parallel to the first flat external surface (FIG. 27A and 27B). The conductor 686 can further include at least a first tap 698A located between the first and second ends wherein the first tap 698A provides electrical access for the drive means 210 to receive the DC power from the power supply 216 conveyed along the conductor 686 in at least one common path in a direction between the first and second ends (paragraph [0163], lines 17-19).

Another aspect of the present invention, reflected in independent claim 34, can include a frame 542, a drive means 210 for recording data, a power supply 216 for providing power to at least the drive means 210, a flat power conductor 686 extending from a first end to a second end (paragraph [0163], lines 17-19, FIGS. 27A-27D), the flat conductor 686 electrically connected to the power supply 216 and at least a first tap 698A located between the first and second ends wherein the tap 698A is capable of providing electrical power from the power supply 216 in at least one common path (paragraph [0165], lines 44-50, FIGS. 27A-27D) to the drive means 210 via the flat power conductor 686.

Yet another aspect of the present invention, reflected in independent claim 40, can include a plurality of drives for recording data 210, a power supply 216 capable of

providing power to the plurality of drives 210, and a flat power conductor 686 for transmitting the power from the power supply 210 to the drives 210 wherein the flat power conductor 686 extends in length between a first end and a second end (paragraph [0163], lines 17-19, FIGS. 27C and 27D) wherein a cross-section of the flat power conductor between the first and second ends is substantially rectangular (paragraph [0162], lines 50-56). The flat power conductor can include, at least one common power line and ground to transmit the power (paragraph [0165], lines 44-50, FIGS. 27A-27D), a plurality of taps 698A-698D (paragraph [0165], lines 36-40, FIGS. 27A-27D) located between the two ends wherein the drives 210 are electrically connected (paragraph [0166], lines 55-60) to the flat power conductor 686 via the taps 698A-698D.

B. Problems in the Prior Art

Data storage library systems generally archive data cartridges within a library unit, and hence, efficient layout of other components within the library can translate into more space for archiving data cartridges, and thus, greater storage capacity. Today, libraries that employ multiple drives convey power from a power supply via multiple cables, wherein the multiple cables are typically bundled together such that the bundle has substantially a circular cross-section. The cross-section of the bundle of cables is made larger by the volume of insulating covers that surround each cable. The Appellants here recognized as part of their invention that the circular cross-sectional shape makes it awkward to "fit" the bundle with other elements of the library for efficient utilization of space within the library. Furthermore, there are special benefits and advantages that would not be readily appreciated from just trying to improve the effiency of the spatial layout of the library such as electromagnetic noise reduction. A bundle of wires often creates a large noise generating electromagnetic field thus forcing the disposition of the bundle away from noise sensitive devices, aspects of the invention provide certain further unexpected noise reduction benefits in addition to improving spatial layouts.

C. Description of the Present Invention

In the interest of brevity, the general components usually involved with the present invention described in section **V.** A. above can be found described in greater detail in Appellant's written description between paragraphs [0001]-[0284]. For the convenience of the Board, certain sections applicable to a primary feature of the disclosed invention are quoted below:

> [0162] Generally, the power supply system 216 provides DC power to the drives 210 using a flat conductor that has a substantially rectangular cross-section, rather than a conventional conductor that has circular cross-section. The use of a flat conductor allows the space within a library to be more efficiently used or used to accommodate more cartridges and/or more drives.
>
> [0163] With reference to FIGS. 27A-27D, the power supply system 216 comprises a power supply 217 comprised of a box-like housing structure with a top side 676A, bottom side 676B, front side 676C, back side 676D, first side 676E, and second side 676F. Associated with the front side 676C are seven power supply bays 678 that each are capable of accommodating a sub-power supply. Generally, the power supply 217 includes a sub-power supply in one of the bays for providing DC power to elements in the library 202 other than the drives 210. The six other bays are populated with sub-power supplies depending on the number of drive bay assemblies that are attached to the ladder frame 542. Generally, one sub-power supply is required for each drive bay assembly attached to the ladder frame 542. Also associated with the front side 676C of the power supply 217 is a pair of AC receptacles 680, with each receptacle capable of accommodating an AC plug through which AC power is provided to the power supply 216 for conversion to DC power. Also associated with the front side 676C is a set of breakers 282 that operate to sever the connection with the source of AC power when the power supply 216 is in an undesirable operating state, such as when the power supply 216 is drawing too much current from the AC source. The first side wall comprises a slot for accommodating an embodiment of a flat electrical power conductor 686 that has a first flat exterior face 686A and a second flat exterior face 686B that extends substantially parallel to the first flat exterior face 686B.

[0164] The flat, electrical power conductor 686 extends vertically and adjacent to one side of the ladder frame 542. In the illustrated embodiment, only one vertical standard 688 of the ladder frame 542 is shown. The flat, electrical power conductor 686 is supported by a channel member 690, which is attached to the ladder frame 542. The channel member 690, in addition to supporting the flat, electrical power conductor 686, also supports six power plugs 692A-292F, one plug for each of the compartments 544A-544F of the ladder frame 542. Each compartment 544A-544F of the ladder frame 542 is capable of accommodating a drive bay assembly that, in turn, is capable of accommodating up to four full height drives and up to eight half-height drives.

[0165] The flat, electrical power conductor 686 is attached to the channel member 690 using a plurality of hole hangers 694 that are attached to the conductor 686 and that each fit over a stud 696 extending from the channel member. The electrical connection between the flat, electrical power conductor 686 and each of the plugs 692A-692F is achieved with taps 698A-698D that are each connected to one of the planar electrical conductors 686 comprising the flat, electrical power conductor 686. To elaborate, any of the drives that can be associated with a drive bay assembly and the QIP associated with a drive bay assembly presently require a +5V signal, a +12V signal, and two ground paths (one for each of the voltage signals). Consequently, the flat, electrical power conductor 686 is a laminate of four electrical conductors, one for each of the two voltage signals and one for each of the two ground paths. If the library is modified so that different electrical signals are required, the flat, electrical power conductor 686 can be modified accordingly.

[0166] As shown in FIG. 27E, an electrical power connection is established between the flat, electrical power conductor 686 and a drive bay assembly 700 in compartment 544F using a plug 702 that is associated with the QIP of the drive bay assembly 700 and that mates with the plug 692F. An electrical connection is established between the flat, electrical conductor 686 and the power supply 216 by a tap assembly 704 that extends between the conductor 686 and the points in the power supply that provide the necessary voltage signals and ground paths. It should be appreciated that the tap assembly 704 comprises a horizontally extending flat power conductor.

[0167] The distance between the first and second flat external faces 686A, 686B of the flat, electrical power conductor 686 is approximately 0.32 inches. In contrast, if a conventional round cable or bundled group of round cables were designed to be able to provide power to the same twenty-four drives 210, the cable or group of cables would have a cross-sectional measurement on the order of 3-4 inches.

[0168] It should be appreciated that the substantially rectangular cross-section shape of the flat, electrical power conductor 686 is complementary to the shapes of most of the other elements in the library 202. As a consequence, the flat, electrical power conductor 686 facilitates the layout of the library 202. In this regard, the flat surfaces 686A, 686B are located so as extend substantially parallel or perpendicular to many of the surfaces associated with elements residing in the library. For instance, the flat surfaces 686A, 686B extend substantially parallel or perpendicular to the exterior surfaces of the housing of the drive bay assembly 700. A horizontally extending flat, electrical power conductor, should one be needed, is also likely to facilitate the layout of a library.

[0169] It should also be appreciated that the flat, electrical power conductor 686 provides benefits in addition to spatial and/or layout related benefits. Namely, the power conductor 686 has a large capacitance that allows power to be provided to the drives in a highly responsive manner. Further, the electrical power conductor 686 produces less electrical "noise" than the prior approach. In addition, relative to the prior approach, the electrical power conductor 686 allows fewer connectors or plugs to be utilized. The use of fewer connectors or plugs is likely to relate to the production of less noise relative to the prior approach. It should be further appreciated that a flat, electrical power conductor can also be applied to a cartridge-based library."

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Issues presented for consideration in this Appeal are:

A. Whether claims 1, 21-28, 30-40 are unpatentable under 35 U.S.C. § 103 over Dimitri in view of VanFleet, Papa and Nagai for obviousness.

B. Whether claim 29 is unpatentable under 35 U.S.C. § 103 for obviousness over Dimitri in view of VanFleet, Papa, Nagai and Albrecht.

VII. ARGUMENT

A. Description of the References Cited by the Examiner.

1. REFERENCE ONE: Dimitri

Dimitri is directed to a quick access data storage library with backup capability featuring bins for supporting magazines containing data storage media. The magazines can be inserted in or withdrawn from front open sides of the bins by a front magazine picker or inserted in or withdrawn from back open sides of the bins by a back magazine picker. The magazines can be moved to drives by a transport assembly whereby storage media can be transported from the magazines to the drive. Dimitri's system sacrifices storage space in the interest of having dual magazine transport assemblies to improve speed and provide redundancy should a transport assembly become disabled. Dimitri's current US. class/subclass includes: **700/214**; 360/99.02; 360/99.06; 369/30.34, wherein the primary class/subclass (in bold) is "DATA PROCESSING: GENERIC CONTROL SYSTEMS OR SPECIFIC APPLICATION/Article storing, retrieval, or arrangement (e.g., warehousing, automated library)."

As the Examiner admits (pg. 3 of the Office Action of March 15, 2006), Dimitri fails to teach or suggest a power supply (although indicates that Dimitri "inherits a power supply"), operatively attached to the frame, for receiving AC power from an external environment and producing DC power in a form suitable for use by the drive means. Nor does Dimitri show a conductor, operatively attached to the frame, for conveying DC power from the power supply to the drive wherein the conductor has a first flat external

surface and a second flat external surface that is substantially parallel to the first flat external surface.

2. REFERENCE TWO: VanFleet

The Examiner cited VanFleet to add to the disclosure of Dimitri the feature of a "power supply 58 (Fig. 2; Column 3, line 55), operatively attached to the frame, for receiving AC power from an external environment and producing DC power in a form suitable for use by the drive means 54 (Fig. 2; Column 3, line 54), and a conductor 60, operatively attached to the frame, for conveying DC power from the power supply to the drive means (Column 1, lines 49-58 and column 3, lines 53-65)". VanFleet's current US. class/subclass includes: **381/1**; 360/12; 360/92; 369/20; 369/274; 369/69; 381/124; 720/600, wherein the primary class/subclass (in bold) is "ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS AND DEVICES/Binaural and stereophonic."

VanFleet is directed to a listening and display unit for playing and displaying audio recordings (such as music tapes). The unit includes a display surface for promotional and instructional messages, two or more audio jacks for connecting an audio player to a head phone jack, an AC/DC power unit to power the player units, and recessed areas for holding recordings in various media (see Abstract, Column 2, lines 53-67).

3. REFERENCE THREE: Papa

The Examiner cited Papa to add to the disclosure of Dimitri and VanFleet the feature of a "conductor for conveying power" citing that "Papa et al shows a data cartridge library, wherein the conductors 421 operatively attached to the frame (Fig. 3C; column 5, lines 63-65), for conveying power from the power supply 105 to the CPU module 103 and wherein the conductor has a flat external surface and a second flat external surface that is substantially parallel to the first flat external surface." Papa's current US. class/subclass includes: **710/104**; 361/686; 361/731, wherein the primary class/subclass (in bold) is "ELECTRICAL COMPUTERS AND DIGITAL DATA PROCESSING/ System configuring."

Papa is directed to methods of removing and replacing data processing circuitry in a computer without powering down the computer. Papa relies on powering down a first interface module via a power control circuit without powering down the computer such that the computer is provided arbitrary access to a second interface module prior to removing the first interface module. In the process of removing the first interface module from the computer, Papa electrically terminates and isolates electrical hardware of the computer upstream of the point where the first interface module is removed.

4. REFERENCE FOUR: Nagai

The Examiner cited Nagai to add to the disclosure of Papa the feature of a "conductor in Fig. 3 including both a first external surface (the surface above 12) and second external surface (the surface below 12) that each extend from a first end to a second end wherein the second flat external surface is parallel to the first external surface between which DC power is conveyed; the conductor further including at least a first tap 16 located between the first and second ends wherein the first tap provides electrical access for the drive means to receive the DC power from the power supply conveyed along the conductor in at least one common path in a direction between the first and second ends." Nagai's current US. class/subclass includes: **29/866** ; 29/831; 29/847; 29/865, wherein the primary class/subclass (in bold) is "METAL WORKING/Electrical making."

Nagai is directed to methods for manufacturing branch connection terminals associated with a Flexible Flat Cable (FFC). Nagai purportedly provides improved mechanical and electrical connections between terminals and the flexible cable by way of Nagai's method of cutting the cable to form branch terminals.

5. REFERENCE FIVE: Albrecht

The Examiner cited Albrecht to add to the disclosure of Dimitri the feature of a "conductor 65 (Fig. 5) being is fixedly attached to a channel member 48 (Fig. 65) associated with the frame." Albrecht's current US. class/subclass includes: **29/866** ;

29/831; 29/847; 29/865, wherein the primary class/subclass (in bold) is "ELECTRICAL SYSTEMS AND DEVICES/ Disk drive support."

Albrecht is directed to a shock mount structure that facilitates shock absorption for a device packaged in a single portable magnetic disk drive cartridge. Albrecht provides an illustration of a portable magnetic disk drive data storage cartridge that is encased in a cartridge, the cartridge has an internal flex cable connected to the disk drive.

B. Claims 1, 21-40 Are Patentable

In compliance with 37 C.F.R. § 1.192(c)(5), Appellant states that claims 1, 21-40 do not all stand or fall together.

Claim 1, 21-40 are patentable under 35 U.S.C. § 103(a) because the applied references, alone or in combination, fail to adequately motivate and enable one skilled in the art to combine the references. Even in light of the Supreme Court decision on *KSR Int'l. Co., v. Teleflex, Inc.* (hereinafter referred to as "the KSR decision"), the Examiner has failed to adequately carry his burden of providing a reasonable prima facie case of obviousness. Herein, Appellant has heavily relied on the *MEMORANDUM from the Deputy Commissioner for Patent Operations, Margret A. Focarino, dated May 3, 2007* (hereinafter referred to as "the Memorandum") and from the KSR decision.

As will be clear, the references do not teach or suggest all the claimed recitations of the invention, furthermore, the references would not have ""prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the manner claimed" (see the Memorandum).

1. CLAIM 1 IS NON-OBVIOUS OVER DIMITRI IN VIEW OF VANFLEET IN VIEW OF PAPA AND FURTHER IN VIEW OF NAGAI

In the final Office Action of September 25, 2006, the Examiner rejected pending independent claim 1 under 35 U.S.C. § 103(a) as being unpatentable over Dimitri in view of VanFleet and in view of Papa and further in view of Nagai. On page 3, the Examiner

asserted that Vanfleet shows a "data storage device" including a power supply, "operatively attached to a frame, for receiving AC power from an external environment and producing DC power in a form suitable for use by the drive means." The Examiner asserted that VanFleet makes up for the deficiencies of Dimitri by combining VanFleet's AC to DC power supply for use with VanFleet's "players" as disclosed by VanFleet. The Examiner further asserted that Papa's "a data cartridge library" makes up for the deficiencies of Dimitri by combining Papa's flat conductors for conveying power from a power supply to a CPU module. The Examiner further asserted that Nagai makes up for the deficiencies of Papa's conductor structure by providing connection terminals.

In contrast, claim 1 of the present Application recites, "...drive means that is operatively attached to said frame, capable of receiving, from a data cartridge transport device, a data cartridge that contains a recording medium, and capable, during operation, of transferring data between a recording medium located within a data cartridge and an environment that is exterior to said drive means... a power supply, operatively attached to said frame, for receiving AC power from an external environment and producing DC power in a form suitable for use by said drive means... a conductor, operatively attached to said frame, said conductor comprising both a first and second flat external surface that each extend from a first end to a second end wherein said second flat external surface is parallel to said first flat external surface between which DC power is conveyed; said conductor further comprising at least a first tap located between said first and second ends wherein said first tap provides electrical access for said drive means to receive said DC power from said power supply conveyed along said conductor in at least one common path in a direction between said first and second ends."

The Examiner asserted in the final Office Action of September 25, 2006 that VanFleet provides a power supply suitable for Appellant's drive means. This is conjecture because Appellant's drive means is defined in Appellant's invention as capable of both reading and writing data as supported by this quote, "one or more drives that are each capable of writing and/or reading data to/from a recording medium in a data cartridge" [Appellant's Written Description, Paragraph 082]. Nowhere does VanFleet

disclose a drive means capable of writing data on a recording medium. VanFleet fails to show a power supply for receiving AC power from an external environment and producing DC power in a form suitable for Appellant's drive means. Furthermore, VanFleet does not even have a single common class and subclass as Dimitri which raises questions of whether or not Dimitri in view of VanFleet would have *"prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the manner claimed* (see the Memorandum). Even in the KSR decision, all of the references used to establish obviousness of claim 4 of the Engelgau patent, US. Patent No. 6,237,565, included at least one common class/subclass, specifically 74/513 (MACHINE ELEMENT OR MECHANISM/Accelerator), forming reasonable basis for the Supreme Court's establishment of "a person of ordinary skill in the relevant field."

Because VanFleet fails to disclose a power supply "suitable" for Appellant's drive means, it is purely conjecture that VanFleet's power supply and player units can be physically combined with Appellant's invention: "If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious." See In re Ratti, 270 F.2d 810, 123 USPQ 249 (C.C.P.A. 1959). Hence, VanFleet does not teach or suggest a power supply for receiving AC power from an external environment and producing DC power in a form suitable for Appellant's drive means.

The Examiner asserted in the final Office Action of September 25, 2006, pg. 3, that:

> Papa et al shows a data cartridge library, wherein the conductors 421 operatively attached to the frame (Fig. 3C; column 5, lines 63-65), for conveying power from the power supply 105 to the CPU module 103 and wherein the conductor has a flat external surface and a second flat external surface that is substantially parallel to the first flat external surface.

In fact, Papa does not show "a data cartridge library", as the Examiner asserts, but rather, shows a computer and network system. Papa is not even in any of the same class, primary or secondary, as Dimitri or VanFleet, let alone subclass, which again raises

issues of forming a reasonable basis for the Supreme Court's establishment of "a person of ordinary skill in the relevant field."

In contrast to Papa, Appellant's claim 1 recites, "a conductor, operatively attached to said frame, said conductor comprising both a first and second flat external surface that each extend from a first end to a second end wherein said second flat external surface is parallel to said first flat external surface between which DC power is conveyed; said conductor further comprising at least a first tap located between said first and second ends wherein said first tap provides electrical access for said drive means to receive said DC power from said power supply conveyed along said conductor in at least one common path in a direction between said first and second ends." The Examiner has incorrectly corresponded elements of Papa with these recited in the rejected claim, for example, Papa's interconnection assembly module 209 comprises two connectors 421 and is not a frame that is capable of having a shelf system operatively attached. And, though the interconnection assembly module 209 is on a printed circuit board, it does not necessarily have a "second flat external surface [that] is parallel to said first flat external surface" or a tap that "provides electrical access for said drive means…in at least one common path in a direction between said first and second ends." The Examiner has leveraged Papa's elements and their respective functionality to an extent that is clearly based on conjecture.

The Examiner proposed that "One of ordinary skill would have been motivated to apply Papa et al's connection [with Dimitri and VanFleet] for being able to replace the modules without stopping the operation." In fact, a person skilled in the art would not have been motivated to reconfigure the primary reference, Dimitri, with spatial savings conductors because Dimitri's apparatus actually teaches sacrificing library space optimization in the interest of speed, and redundancy, of a dual robotics system operating on two sides of a shelf system. Furthermore, even though motivation to replace modules without "replacing the connection without powering down the connection (Column 2, lines 49-53)", as in Papa, has advantages, non of this was the inventor's motivation. Rather, the inventor's was motivated to enhance the amount of data storage per volume

of data storage library space. As part of their inventive process, the inventors explored the possibility of finding a better spatial layout of data storage library components in order to provide enhanced storage capacity. In analyzing all of the components of such libraries, the inventors recognized, as part of their discovery, and invention, that improvements could be made to the configuration of the power cables. Further analysis and development led not only to the design of the "flat" conductor configuration, but also to the recognition that such a configuration offered special unexpected benefits of noise reduction and the use of fewer conductors and plugs.

The Examiner asserted in the final Office Action of September 25, 2006, pg. 3, that "Papa shows the conductor for conveying the power, but does not show the detailed structure of the conductor." The Examiner finally asserted in the final Office Action of September 25, 2006, pg. 3 that:

> Nagai shows a conductor in Fig. 3 including both a first external surface (the surface above 12) and second external surface (the surface below 12) that each extend from a first end to a second end wherein the second flat external surface is parallel to the first external surface between which DC power is conveyed; the conductor further including at least a first tap 16 located between the first and second ends wherein the first tap provides electrical access for the drive means to receive the DC power from the power supply conveyed along the conductor in at least one common path in a direction between the first and second ends.

In both the Final Rejection of 09/25/2006 and the Advisory Action of 12/05/2006 the Examiner has maintained that Nagai shows in FIG. 3 and FIG. 5 "that the first tap is located between the first and second ends of Nagai's FFC". The Examiner has failed to properly construe the references in relation to independent claim 1 (and also independent claims 34 and 40). The Examiner's interpretation of Nagai is artificial and contrived. For example, one could argue that a connector at the end of a wire is really not in contact at the infinitesimal limit of the wire's end, but rather is spaced at some distance, possibly atoms, away from the end. As is clearly shown by FIG. 5 and also as is written in Nagai's disclosure (column 4, lines 13-19), the taps and connectors 17 are essentially at the end of the wires.

> Then as shown in FIG. 3, slots 14A are formed in the FFC 11 between any two conductive strips 12 at a predetermined distance from the end of the of the FFC 11. Accordingly, a connection area A along the end of the FFC 11 and a separated area B located next to the connection area are defined. In addition to the slots 14A, cutouts 15A are formed along the longitudinal edges of the FFC 11 and in the separated area B.

And, also from the descriptions of the figures: "FIG. 5 illustrates the step of forming slits in the FFC from the end of the FFC so as to communicate with the associated slots." The connection area A is ultimately cut to the separated area B allowing conductive strips 12 to move freely as branch terminals. Nowhere does Nagai teach or suggest an electrical power tap located between the ends of a flat conductor having a first and second flat external surface that each extend from a first end to a second end as in Applicant's invention. Nagai, at most, discloses a non-extended, folded over conductor (FIG. 7).

The Examiner asserted that "It would have been obvious at the time the invention was made to one of ordinary skill in the art to apply Nagai's structure to Papa's conductor." The Examiner's purported motivation was "One of ordinary skill in the art would have been motivated to apply Nagai's structure for preventing displacement and offset." Furthermore, Nagai does not even have a single class and subclass in common with VanFleet, Papa and Dimitri, which raises the question of whether or not Dimitri in view of VanFleet in view of Papa in view of Nagai would have ""prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the manner claimed" (see the Memorandum). In other wordsthe Examiner has not shown how one of ordinary skill in the field of data storage libraries would have been so motivated to search a variety of remote technical fields in the quest to find specific elements that are already combined, how such a person would have found those references (or similar ones), laid them out, and seen an obvious combination. Although in an obviousness determination, one of ordinary skill in the art is presumed to know all of the prior art in the relevant art, here, the Examiner has unduly and improperly expanded that standard so that one of ordinary skill in the field of data storage systems is presumed to know all of the prior art in all arts.

In light of the above arguments regarding Dimitri in view of VanFleet in view of Papa and in view of Nagai, Appellant respectfully submits that the rejection of claim 1 under §103(a) should be reversed.

2. CLAIMS 21-23 ARE NON-OBVIOUS OVER DIMITRI IN VIEW OF VANFLEET IN VIEW OF PAPA AND FURTHER IN VIEW OF NAGAI

In the final Office Action of September 25, 2006, the Examiner rejected pending dependent claims 21-23 under 35 U.S.C. § 103(a) as being unpatentable over Dimitri in view of VanFleet and in view of Papa and further in view of Nagai. The Examiner asserted that:

> a power supply for supplying power to drive means inherently supplies sufficient power at 5 volts and 12 volts with ground connection to the drive means, therefore, inherently the flat connector includes at least a first electrical pathway corresponding to a first voltage and first ground and a second electrical pathway corresponding to a second voltage and second ground; the first voltage is 12 volts and the second voltage is 5 volts; and the first and second pathway can carry sufficient power to provide power to a plurality of drives.

Appellant notes that claim 21 requires an amendment to correct for mistakenly writing "connector" instead of "conductor". Such a correction will be made upon a successful outcome of this appeal.

As an initial matter, claims 21-23 depend directly or indirectly from independent claim 1 which, as discussed above, is believed patentable over Dimitri and VanFleet and Papa and Nagai. "If an independent claim is nonobvious under 35 U.S.C. §103(a), then any claim depending therefrom is nonobvious." See In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). Thus, even assuming, *arguendo*, that the references are combinable, as discussed above, the proffered combination would not have *"prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the manner claimed* (the Memorandum) and furthermore, still fails to teach or suggest each recitation of independent claim 1.

Further, the Examiner's assertions that a power supply for supplying power to a drive means inherently supplies sufficient power at 5 volts and 12 volts and that (relative to claim 23) the pathways in the conductor can carry "sufficient to power to provide power to a plurality of drives" most likely deviates from Papa because Papa is directed to signal transmission and other low power applications. Hence, Papa's interconnection assembly circuit board module 209 would probably short circuit.

Appellant respectfully requests that the rejection of claims 21-23 under §103(a) be reversed.

3. CLAIMS 24-25 ARE NON-OBVIOUS OVER DIMITRI IN VIEW OF VANFLEET IN VIEW OF PAPA AND FURTHER IN VIEW OF NAGAI

Claims 24-26 depend directly or indirectly from independent claim 1 which, as discussed above, is believed patentable over Dimitri and VanFleet and Papa and Nagai. "If an independent claim is nonobvious under 35 U.S.C. §103(a), then any claim depending therefrom is nonobvious." See In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). Thus, even assuming, *arguendo*, that the references are combinable, as discussed above, the proffered combination would not *"prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the manner claimed* (the Memorandum) and furthermore, still fails to teach or suggest each recitation of independent claim 1.

In regards to claims 24 and 25, the Examiner asserted that Nagai shows a tap and plug system in the middle of a spliced flexible ribbon cable. Though this may be the case, Nagai taken in view of Papa, Dimitri and VanFleet does not teach all of the recitations of claim 1. With respect to claim 26, the Examiner asserted "inherently the power is provided to the drive means from the conductor when the first plug cooperates with a third plug linked with the drive means, which can correspond[s] to a ground connection." The Examiner relied on speculative inherencies in all of the references to teach, suggest and motivate *"prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the manner claimed* (the Memorandum).

As such, Appellant respectfully requests that the rejection of claims 24-25 under §103(a) be reversed.

4. CLAIM 26 IS NON-OBVIOUS OVER DIMITRI IN VIEW OF VANFLEET IN VIEW OF PAPA AND FURTHER IN VIEW OF NAGAI

Claim 26 depends indirectly from independent claim 1 which, as discussed above, is believed patentable over Dimitri and VanFleet and Papa and Nagai. "If an independent claim is nonobvious under 35 U.S.C. §103(a), then any claim depending therefrom is nonobvious." See In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). Thus, even assuming, *arguendo*, that the references are combinable, as discussed above, the proffered combination would not *"prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the manner claimed* (the Memorandum) and furthermore, still fails to teach or suggest each recitation of independent claim 1.

In regards to With respect to claim 26, the Examiner asserted Nagai "inherently the power is provided to the drive means from the conductor when the first plug cooperates with a third plug linked with the drive means, which can correspond[s] to a ground connection." The Examiner relied on speculative inherencies in all of the references to teach, suggest and motivate *"prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the manner claimed* (the Memorandum).

As such, Appellant respectfully requests that the rejection of claim 26 under §103(a) be reversed.

5. CLAIM 27 IS NON-OBVIOUS OVER DIMITRI IN VIEW OF VANFLEET IN VIEW OF PAPA AND FURTHER IN VIEW OF NAGAI

Claim 27 depends directly from independent claim 1 which, as discussed above, is believed patentable over Dimitri and VanFleet and Papa and Nagai. "If an independent

claim is nonobvious under 35 U.S.C. §103(a), then any claim depending therefrom is nonobvious." See In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). Thus, even assuming, *arguendo*, that the references are combinable, as discussed above, the proffered combination would not have *"prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the manner claimed* (the Memorandum) and furthermore, still fails to teach or suggest each recitation of independent claim 1.

The Examiner asserted that "In the above constructed device, the conductor is for providing power exclusively to the drive means since all the units receiving the power in Dimitri's device can be combined together and defined as drive means." Though Dimitri's devices can be combined together and defined as a drive means, there are no teachings or suggestion in any of the references that any conductor with recitations directed to Appellant's claimed invention "provides power exclusively" to a drive means.

Hence, Appellant respectfully requests that the rejection of claims 27 under §103(a) be reversed.

6. CLAIM 28 IS NON-OBVIOUS OVER DIMITRI IN VIEW OF VANFLEET IN VIEW OF PAPA AND FURTHER IN VIEW OF NAGAI

Claim 28 depends directly from independent claim 1 which, as discussed above, is believed patentable over Dimitri and VanFleet and Papa and Nagai. "If an independent claim is nonobvious under 35 U.S.C. §103(a), then any claim depending therefrom is nonobvious." See In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). Thus, even assuming, *arguendo*, that the references are combinable, as discussed above, the proffered combination would not have *"prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the manner claimed* (the Memorandum) and furthermore, still fails to teach or suggest each recitation of independent claim 1.

The Examiner asserted that "the first tap can provide the electrical access with the drive means, Dimitri shows that the drive means including a plurality of drives." Though Dimitri's devices can be combined together and defined as a drive means, there are no teachings or suggestion in any of the references that any conductor with recitations directed to Appellant's claimed invention has a "first tap [which] can provide said electrical access with said drive means".

Hence, Appellant respectfully requests that the rejection of claim 28 under §103(a) be reversed.

7. CLAIM 29 IS NON-OBVIOUS OVER DIMITRI IN VIEW OF VANFLEET IN VIEW OF PAPA IN VIEW OF NAGAI AND FURTHER IN VIEW OF ALBRECHT.

Claim 29 depends directly from independent claim 1 which, as discussed above, is believed patentable over Dimitri and VanFleet and Papa and Nagai. "If an independent claim is nonobvious under 35 U.S.C. §103(a), then any claim depending therefrom is nonobvious." See In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). Thus, even assuming, *arguendo*, that the references are combinable, as discussed above, the proffered combination would not have *"prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the manner claimed* (the Memorandum) and furthermore, still fails to teach or suggest each recitation of independent claim 1.

The Examiner (pg. 8 of the Final Rejection of September 25, 2006) admitted that "Dimitri does not specify the way of mounting the cable" but asserted that "Albrecht et al shows a conductor 65 (Fig. 5) being fixedly attached to a channel member 48 (Fig. 6) associated with the frame." The Examiner further asserted "One of ordinary skill in the art would have been searching a way for fixing the conductor and distributing the power to the drives. Albrecht et al shows a way for fixing the conductor and it [is] can be used for connecting various secondary conductors to it. One of ordinary skill in the art would have been motivated to apply the channel member taught by Albrecht el al for fixing the

conductor and further for distributing the power to various units." The Examiner is incorrect, Albrecht does not teach or discuss a channel member or the flex cable conductor 65 fixedly attached to anything. In addition, element 48 is "an external data transfer electrical connector" not a channel member. Finally, Albrecht is directed to a disk drive cassette shell, and does not have a common class and subclass as any of the other references, which as discussed, supra, raises questions of whether or not Albrecht in view of Dimitri in view of VanFleet in view of Papa and in view of Nagai would have *"prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the manner claimed* (see the Memorandum). Also, the Examiner's assertion that "Dimitri does not specify the way of mounting the cable", is confounding because the Examiner previously admitted Dimitri does not even show a cable, i.e., the Examiner appeared to rely on Papa for a conductor, supra.

Therefore, Appellant respectfully requests that the rejection of claim 29 under §103(a) be reversed.

8. CLAIM 30 IS NON-OBVIOUS OVER DIMITRI IN VIEW OF VANFLEET IN VIEW OF PAPA AND FURTHER IN VIEW OF NAGAI.

Claim 30 depends directly from independent claim 1 which, as discussed above, is believed patentable over Dimitri and VanFleet and Papa and Nagai. "If an independent claim is nonobvious under 35 U.S.C. §103(a), then any claim depending therefrom is nonobvious." See In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). Thus, even assuming, *arguendo*, that the references are combinable, as discussed above, the proffered combination would not have *"prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the manner claimed* (the Memorandum) and furthermore, still fails to teach or suggest each recitation of independent claim 1.

The Examiner asserted that "Papa et al shows in Fig. 5 that the conductor is associated with a drive bay each adapted to accommodate at least one drive; one of

ordinary skill in the art would have been reasonably expecting that as the cable taught by Nagai is used in the drive, the conductor would further include a second and third tap, wherein each of the taps is associated wit ha drive bay each adapted to accommodate at least one drive" The Examiner is incorrect, Papa does not show a drive bay in FIG. 5, let alone a drive bay that is powered by an interconnection assembly module 209. In the absence of these recited features, claim 30 is not obvious over the prior art of record.

Hence, Appellant respectfully requests that the rejection of claim 30 under §103(a) be reversed.

9. CLAIMS 31 AND 32 ARE NON-OBVIOUS OVER DIMITRI IN VIEW OF VANFLEET IN VIEW OF PAPA AND FURTHER IN VIEW OF NAGAI.

Claims 31 and 32 depend directly or indirectly from independent claim 1 which, as discussed above, is believed patentable over Dimitri and VanFleet and Papa and Nagai. "If an independent claim is nonobvious under 35 U.S.C. §103(a), then any claim depending therefrom is nonobvious." See In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). Thus, even assuming, *arguendo*, that the references are combinable, as discussed above, the proffered combination would not have *"prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the manner claimed* (the Memorandum) and furthermore, still fails to teach or suggest each recitation of independent claim 1.

The Examiner asserted that "Nagai shows in Fig. 5 that the conductor further includes a connector 17 substantially disposed at the first end." Though Nagai does indeed show a connector at a first end of a cable, Nagai differs from Appellant's flat conductor for at least the reasons that Nagai's conductor is not extended between a first end and a second end. In the absence of at least this recited feature, claims 31 and 32 are not obvious over the prior art of record.

Hence, Appellant respectfully requests that the rejection of claims 31 and 32 under §103(a) be reversed.

10. CLAIM 33 IS NON-OBVIOUS OVER DIMITRI IN VIEW OF VANFLEET IN VIEW OF PAPA AND FURTHER IN VIEW OF NAGAI.

Claim 33 depends directly from independent claim 1 which, as discussed above, is believed patentable over Dimitri and VanFleet and Papa and Nagai. "If an independent claim is nonobvious under 35 U.S.C. §103(a), then any claim depending therefrom is nonobvious." See In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). Thus, even assuming, *arguendo*, that the references are combinable, as discussed above, the proffered combination would not have *"prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the manner claimed* (the Memorandum) and furthermore, still fails to teach or suggest each recitation of independent claim 1.

The Examiner asserted that "in the above constructed device, the power supply is connected to the conductor at the first end." Though certain elements of certain embodiments of the prior art do indeed have connections substantially at the ends of electrical conductors, the prior art of record are not believed combinable for the aforementioned reasons.

As such, Appellant respectfully requests that the rejection of claim 33 under §103(a) be reversed.

11. CLAIM 34 IS NON-OBVIOUS OVER DIMITRI IN VIEW OF VANFLEET IN VIEW OF PAPA AND FURTHER IN VIEW OF NAGAI.

Claim 34 is an independent claim which, for many of the same reasons as discussed above, is patentable over Dimitri and VanFleet and Papa and Nagai. Claim 34 is directed to a storage library and features, "a frame; a drive means for recording data; a power supply for providing power to at least said drive means; a flat power conductor extending from a first end to a second end, said flat conductor electrically connected to

said power supply; at least a first tap located between said first and second ends wherein said tap is capable of providing electrical power from said power supply in at least one common path to said drive means via said flat power conductor." The Examiner, as in claim 1, asserted that the combination of Dimitri and VanFleet and Papa and Nagai renders Appellant's claim 34 obvious. The Examiner is incorrect because the combination of the references do not disclose, teach or suggest all of the features, either alone or in combination, as recited claim 34. Furthermore, as discussed previously, the proffered combination would not have *"prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the manner claimed* (the Memorandum) because the prior art applied are from different technology fields as illustrated by the references' class/subclasses.

For at least the reasons set forth, Appellant respectfully requests that the rejection of claim 34 under §103(a) be reversed.

12. CLAIM 35 IS NON-OBVIOUS OVER DIMITRI IN VIEW OF VANFLEET IN VIEW OF PAPA AND FURTHER IN VIEW OF NAGAI.

Claim 35 depends directly from independent claim 34 which, as discussed above, is believed patentable over Dimitri and VanFleet and Papa and Nagai. "If an independent claim is nonobvious under 35 U.S.C. §103(a), then any claim depending therefrom is nonobvious." See In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). Thus, even assuming, *arguendo*, that the references are combinable, as discussed above, the proffered combination would not have *"prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the manner claimed* (the Memorandum) and furthermore, still fails to teach or suggest each recitation of independent claim 34.

The Examiner asserted that "in the above constructed device, the drive means is a disk drive." The Examiner failed to identify the reference beyond the primary reference, Dimitri, where the disk drive(s) is/are that the Examiner is applying as obvious, "The

[Supreme] Court noted that the analysis supporting a rejection under 35 U.S.C. § 103(a) should be made explicit" (the Memorandum, section 4). For at least the reasons provided, the prior art of record are not believed combinable.

Therefore, Appellant respectfully requests that the rejection of claim 35 under §103(a) be reversed.

13. CLAIM 36 IS NON-OBVIOUS OVER DIMITRI IN VIEW OF VANFLEET IN VIEW OF PAPA AND FURTHER IN VIEW OF NAGAI.

Claim 36 depends directly from independent claim 34 which, as discussed above, is believed patentable over Dimitri and VanFleet and Papa and Nagai. "If an independent claim is nonobvious under 35 U.S.C. §103(a), then any claim depending therefrom is nonobvious." See In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). Thus, even assuming, *arguendo*, that the references are combinable, as discussed above, the proffered combination would not have *"prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the manner claimed* (the Memorandum) and furthermore, still fails to teach or suggest each recitation of independent claim 34.

The Examiner asserted that "in the above constructed device, the flat connector includes at least an electric pathway for a first voltage and first ground and a second voltage and second ground." The Examiner failed to identify the reference/s or the explicit reasons one skilled in the art "in the relevant field" would be motivated to combine the references in the way claim 36 sets forth because the Examiner failed to show or explain where a first and second voltage with at least a relative first and second ground is provided for in the prior art. Because the Examiner failed to make a reasonable prima facie case of obviousness as a basis to reject claim 36, Appellant respectfully requests that the rejection of claim 36 under §103(a) be reversed.

14. CLAIM 37 IS NON-OBVIOUS OVER DIMITRI IN VIEW OF VANFLEET IN VIEW OF PAPA AND FURTHER IN VIEW OF NAGAI.

Claim 37 depends directly from independent claim 34 which, as discussed above, is believed patentable over Dimitri and VanFleet and Papa and Nagai. "If an independent claim is nonobvious under 35 U.S.C. §103(a), then any claim depending therefrom is nonobvious." See In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). Thus, even assuming, *arguendo*, that the references are combinable, as discussed above, the proffered combination would not have *"prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the manner claimed* (the Memorandum) and furthermore, still fails to teach or suggest each recitation of independent claim 34.

The Examiner asserted that "in the above constructed device, the first tap is capable of electrically connecting with a first plug." This claim clearly rests on the validity of claim 34 which the Appellant has argued is non obvious over the prior art of record, therefore, Appellant respectfully requests that the rejection of claim 37 under §103(a) be reversed.

15. CLAIM 38 IS NON-OBVIOUS OVER DIMITRI IN VIEW OF VANFLEET IN VIEW OF PAPA AND FURTHER IN VIEW OF NAGAI.

Claim 38 depends directly from independent claim 34 which, as discussed above, is believed patentable over Dimitri and VanFleet and Papa and Nagai. "If an independent claim is nonobvious under 35 U.S.C. §103(a), then any claim depending therefrom is nonobvious." See In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). Thus, even assuming, *arguendo*, that the references are combinable, as discussed above, the proffered combination would not have *"prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the manner claimed* (the Memorandum) and furthermore, still fails to teach or suggest each recitation of independent claim 34.

The Examiner asserted that "in the above constructed device, the disk drive connects with a plug connected to the first tap." The Examiner failed to identify the reference/s or the explicit reasons one skilled in the art "in the relevant field" would be motivated to combine the references in the way claim 38 sets forth because the Examiner failed to show or explain where a disk drive connects to a plug connected to the "first tap that is located between said first and second ends wherein said tap is capable of providing electrical power from said power supply in at least one common path to said drive means via said flat power conductor." Because the Examiner failed to make a reasonable prima facie case of obviousness as a basis to reject claim 38, Appellant respectfully requests that the rejection of claim 38 under §103(a) be reversed.

16. CLAIM 39 IS NON-OBVIOUS OVER DIMITRI IN VIEW OF VANFLEET IN VIEW OF PAPA AND FURTHER IN VIEW OF NAGAI.

Claim 39 depends directly from independent claim 34 which, as discussed above, is believed patentable over Dimitri and VanFleet and Papa and Nagai. "If an independent claim is nonobvious under 35 U.S.C. §103(a), then any claim depending therefrom is nonobvious." See In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). Thus, even assuming, *arguendo*, that the references are combinable, as discussed above, the proffered combination would not have *"prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the manner claimed* (the Memorandum) and furthermore, still fails to teach or suggest each recitation of independent claim 34.

The Examiner asserted that "in the above constructed device, the power conductor is fixedly disposed along the frame and wherein the power conductor provides a second tap and a third tap, each of the taps providing power to a corresponding drive by, the drive bay capable of holding at least one drive." The Examiner failed to identify the reference/s or the explicit reasons one skilled in the art "in the relevant field" would be motivated to combine the references in the way claim 39 sets forth because the Examiner failed to show or explain where a power conductor is "fixedly disposed along the frame"

and where a drive bay capable of holding a drive is disclosed, taught or shown in the references. Because the Examiner failed to make a reasonable prima facie case of obviousness as a basis to reject claim 39, Appellant respectfully requests that the rejection of claim 39 under §103(a) be reversed.

17. CLAIM 40 IS NON-OBVIOUS OVER DIMITRI IN VIEW OF VANFLEET IN VIEW OF PAPA AND FURTHER IN VIEW OF NAGAI.

Claim 40 is an independent claim which, for many of the same reasons as discussed above, is patentable over Dimitri and VanFleet and Papa and Nagai. Claim 40 is directed to a storage library and features, "a plurality of drives for recording data; a power supply capable of providing power to said plurality of drives; a flat power conductor for transmitting said power from said power supply to said drives wherein said flat power conductor extends in length between a first end and a second end wherein a cross-section of said flat power conductor between said first and second ends is substantially rectangular, said flat power conductor comprising: at least one common power line and ground to transmit said power, a plurality of taps located between said two ends wherein said drives are electrically connected to said flat power conductor via said taps." As in claim 1, the Examiner asserted that the combination of Dimitri and VanFleet and Papa and Nagai renders Appellant's claim 40 obvious. The Examiner is incorrect because the combination of the references do not disclose, teach or suggest all of the features, either alone or in combination, as recited claim 40. Furthermore, as discussed previously, the proffered combination would not have *"prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the manner claimed* (the Memorandum) because the prior art applied are from different technology fields as illustrated by the references' class/subclasses.

For at least the reasons set forth, Appellant respectfully requests that the rejection of claim 40 under §103(a) be reversed.

In conclusion, because the Examiner has failed to substantiate a prima facie case of obviousness by failing to at least find true correspondence between elements in the prior art systems and those in the claims and by failing, at least, to substantiate a reasonable motivation by a person of ordinary skill in the relevant field to combine and modify the prior art references, Appellant respectfully requests reversal of the Examiner's rejections of claims 1, 21-40.

* * *

Authorization To Charge Necessary Fees

The Commissioner is hereby authorized to charge any additional necessary fees associated with this submission, or credit any overpayment, to Deposit Account No. 50-3010.

Respectfully submitted,

Dated: 5/16/07

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VIII. CLAIM APPENDIX TO BRIEF ON APPEAL

The claims on appeal are as follows:

1. (Previously Presented) A data cartridge library comprising:

a frame;

a shelf system, operatively attached to said frame, for supporting at least two data

cartridge magazines and comprising at least one shelf;

drive means that is operatively attached to said frame, capable of receiving, from a data cartridge transport device, a data cartridge that contains a recording medium, and capable, during operation, of transferring data between a recording medium located within a data cartridge and an environment that is exterior to said drive means;

a magazine transport device, operatively attached to said frame, for moving a data cartridge magazine;

a cartridge transport device, operatively attached to said frame, for moving a data cartridge between a data cartridge magazine and said drive means; and

a power supply, operatively attached to said frame, for receiving AC power from an external environment and producing DC power in a form suitable for use by said drive means; and

a conductor, operatively attached to said frame, said conductor comprising both a first and second flat external surface that each extend from a first end to a second end wherein said second flat external surface is parallel to said first flat external surface between which DC power is conveyed; said conductor further comprising at least a first tap located between said first and second ends wherein said first tap provides electrical access for said drive means to receive said DC power from said power supply conveyed along said conductor in at least one common path in a direction between said first and second ends.

2-20. (Canceled).

21. (Previously Presented) The data cartridge library of claim 1 wherein said flat connector comprises at least a first electrical pathway corresponding to a first voltage and first ground and a second electrical pathway corresponding to a second voltage and second ground.

22. (Previously Presented) The data cartridge library of claim 21 wherein said first voltage is 12 volts and said second voltage is 5 volts.

23. (Previously Presented) The data cartridge library of claim 21 wherein said first and second pathway can carry sufficient power to provide power to a plurality of drives.

24. (Previously Presented) The data cartridge library of claim 1 wherein said first tap is capable of electrically connecting with a first plug.

25. (Previously Presented) The data cartridge library of claim 24 further comprising a second tap that is located between said first and second end of said conductor and is capable of electrically connecting with a second plug.

26. (Previously Presented) The data cartridge library of claim 24 wherein power is provided to said drive means from said conductor when said first plug cooperates with a third plug linked with said drive means.

27. (Previously Presented) The data cartridge library of claim 1 wherein said conductor is for providing power exclusively to said drive means.

28. (Previously Presented) The data cartridge library of claim 1 wherein said first tap can provide said electrical access with said drive means, said drive means comprising a plurality of drives.

29. (Previously Presented) The data cartridge library of claim 1 wherein said conductor is fixedly attached to a channel member associated with said frame.

30. (Previously Presented) The data cartridge library of claim 1 wherein said conductor further comprises a second and third tap, wherein each of said taps is associated with a drive bay each adapted to accommodate at least one drive.

31. (Previously Presented) The data cartridge library of claim 1 wherein said conductor further comprises a connector substantially disposed at said first end.

32. (Previously Presented) The data cartridge library of claim 31 wherein said conductor further comprises a connector substantially disposed at said second end.

33. (Previously Presented) The data cartridge library of claim 1 wherein said power supply is connected to said conductor at said first end.

34. (Previously Presented) A storage library comprising:

a frame;

a drive means for recording data;

a power supply for providing power to at least said drive means;

a flat power conductor extending from a first end to a second end, said flat conductor electrically connected to said power supply;

at least a first tap located between said first and second ends wherein said tap is capable of providing electrical power from said power supply in at least one common path to said drive means via said flat power conductor.

35. (Previously Presented) The storage library of claim 34 wherein said drive means is a disk drive.

36. (Previously Presented) The storage library of claim 34 wherein said flat connector comprises at least an electrical pathway for a first voltage and first ground and a second voltage and second ground.

37. (Previously Presented) The data cartridge library of claim 34 wherein said first tap is capable of electrically connecting with a first plug.

38. (Previously Presented) The data cartridge library of claim 34 wherein said disk drive connects with a plug connected to said first tap.

39. (Previously Presented) The data cartridge library of claim 34 wherein said power conductor is fixedly disposed along said frame and wherein said power conductor provides a second tap and a third tap, each of said taps providing power to a corresponding drive bay, said drive bay capable of holding at least one drive.

40. (Previously Presented) A storage library comprising:

a plurality of drives for recording data;

a power supply capable of providing power to said plurality of drives;

a flat power conductor for transmitting said power from said power supply to said drives wherein said flat power conductor extends in length between a first end and a second end wherein a cross-section of said flat power conductor between said first and second ends is substantially rectangular, said flat power conductor comprising: at least one common power line and ground to transmit said power, a plurality of taps located between said two ends wherein said drives are electrically connected to said flat power conductor via said taps.

IX. EVIDENCE APPENDIX TO BRIEF ON APPEAL

No evidence is provided herewith.

X. RELATED PROCEEDINGS APPENDIX TO BRIEF ON APPEAL

There are no related proceedings pertaining to the above identified application.